

Amendments to the Claims:

Please amend the claims as indicated.

1. (Currently Amended) A computer readable storage medium storing a self-descriptive binary data structure executable on a computer processor for communicating binary data, the computer readable storage medium comprising:

the self-descriptive binary data structure configured to communicate data between a source device and a target device distinct from the source device, and comprising

an image header comprising 512 bytes with a first 128 bytes and a last 128 bytes that are location, size, and content definition invariant, the first 128 and last 128 storing architecture-specific descriptors and an eight byte version indicator;

a plurality of data segments, each of the plurality of data segments comprising a segment header and a data field, the segment header descriptive of the corresponding data segment;

a target data set within the data field; and

a data structure descriptor descriptive of the self-descriptive binary data structure, the data structure descriptor identifying the location of the target data set within the data field.

2. (Previously Presented) The computer readable storage medium of claim 1, further comprising a customizable directory descriptor, the customizable directory descriptor configured to provide a directory of the data stored in each of the data fields within the self-descriptive binary data structure.

3. (Previously Presented) The computer readable storage medium of claim 2, wherein the target data set comprises a bootstrap executable, the bootstrap executable configured to reference the customizable directory descriptor and to identify a location of a second target data set within the self-descriptive binary data structure using the customizable directory descriptor.

4. (Previously Presented) The computer readable storage medium of claim 3, wherein the bootstrap executable is further configured to access the second target data set within the self-descriptive binary data structure.
5. (Previously Presented) The computer readable storage medium of claim 1, further comprising a data structure version descriptor configured to indicate a version of the self-descriptive binary data structure.
6. (Previously Presented) The computer readable storage medium of claim 1, further comprising a data structure name descriptor configured to indicate a name of the self-descriptive binary data structure.
7. (Previously Presented) The computer readable storage medium of claim 1, further comprising a data structure type descriptor configured to indicate a type of the self-descriptive binary data structure.
8. (Previously Presented) The computer readable storage medium of claim 1, further comprising a data structure count descriptor configured to indicate a number of the plurality of data segments within the self-descriptive binary data structure.
9. (Previously Presented) The computer readable storage medium of claim 1, wherein the target data set is an executable.
10. (Previously Presented) The computer readable storage medium of claim 1, wherein the target data set is a code image.

11. (Previously Presented) The computer readable storage medium of claim 1, wherein one of the plurality of data segments is an alignment data segment configured to align the size of the self-descriptive binary data structure for at least one of error detection and correction.

12. (Previously Presented) The computer readable storage medium of claim 1, wherein the data segment header comprises a flag field configured to store a flag, the flag descriptive of the data stored in the data field.

13. (Currently Amended) A system for communicating binary data using a self-descriptive binary data structure capable of being stored in a computer readable storage medium, the system comprising:

a communications channel;

a source communication device connected to the communications channel and configured to transmit a self-descriptive binary data structure;

a target communication device connected to the source communications device via the communications channel, the target communication device distinct from the source communication device and configured to receive the self-descriptive binary data structure from the source communication device;

wherein the self-descriptive binary data structure comprises:

an image header comprising 512 bytes with a first 128 bytes and a last 128 bytes that are location, size, and content definition invariant, the first 128 and last 128 storing architecture-specific descriptors and an eight byte version indicator;

a plurality of data segments, each of the plurality of data segments comprising a segment header and a data field, the segment header descriptive of the corresponding data segment;

a target data set within the data field;

a data structure descriptor descriptive of the self-descriptive binary_data structure, the data structure descriptor configured to identify the location of the target data set within the data field; and

wherein the target communication device is configured to process an executable, the executable stored in the self-descriptive binary data structure.

14. (Previously Presented) The system of claim 13, wherein the source communication device is further configured to generate the self-descriptive binary data structure.

15. (Previously Presented) The system of claim 14, wherein the source communication device is further configured to generate the self-descriptive binary data structure from a non-binary data structure.

16. (Cancelled)

17. (Previously Presented) The system of claim 13, wherein the executable comprises a bootstrap executable, the bootstrap executable configured to access a code image within the self-descriptive binary data structure.

18. (Currently Amended) A method for communicating binary data using a self-descriptive binary data structure, the method comprising:

generating a self descriptive binary data structure comprising

an image header comprising 512 bytes with a first 128 bytes and a last 128 bytes that are location, size, and content definition invariant, the first 128 and last 128 storing architecture-specific descriptors and an eight byte version indicator;

a plurality of data segments, each of the plurality of data segments comprising a segment header and a data field, the segment header descriptive of the corresponding data segment;

a target data set within the data field; and
a data structure descriptor to the plurality of data segments, the data structure descriptor descriptive of the self-descriptive binary data structure and identifying the location of the target data set within the data field;
communicating the self descriptive binary data structure with a communications interface from a source device to a target device distinct from the source device; and
processing the target data set.

19. (Previously Presented) The method of claim 18, further comprising storing a customizable directory descriptor and providing a directory of the data stored in each of the data fields within the self-descriptive binary data structure.

20. (Previously Presented) The method of claim 19, further comprising storing a bootstrap executable and identifying a location of a second target data set within the self-descriptive binary data structure using the customizable directory descriptor.

21. (Previously Presented) The method of claim 20, further comprising accessing the second target data set within the self-descriptive binary data structure.

22. (Previously Presented) The method of claim 18, wherein generating the plurality of data segments comprises generating an alignment data segment and aligning the size of the self-descriptive binary data structure for at least one of error detection and correction.

23. (Cancelled)

24. (Previously Presented) The method of claim 18, wherein generating a plurality of data segments comprises generating the plurality of data segments from a non-binary data structure.

25. (Cancelled)

26. (Previously Presented) The method of claim 18, wherein processing an executable comprises processing a bootstrap executable, the bootstrap executable configured to access a code image within the self-descriptive binary data structure.

27. (Currently Amended) A method for communicating binary data, the method comprising:

providing a self-descriptive binary data structure at a source communications device, the self-descriptive binary data structure having an image header comprising 512 bytes with a first 128 bytes and a last 128 bytes that are location, size, and content definition invariant, the first 128 and last 128 storing architecture-specific descriptors and an eight byte version indicator and a customizable directory descriptor, the customizable descriptor configured to provide a directory of the data stored in each of the data fields within the self-descriptive binary data structure;

communicating the self-descriptive binary data structure between a source communication device and a target communication device via a communications network, the target device distinct from the source device;

processing the self-descriptive binary data structure at the target communications device; and

executing a bootstrap executable, the bootstrap executable configured to reference the customizable directory descriptor and to identify a location of a second target data set within the self-descriptive binary data structure using the customizable directory descriptor.

28. (Original) The method of claim 27, wherein providing the self-descriptive binary data structure comprises converting a non-binary data structure into the self-descriptive binary data structure.

29. (Currently Amended) A computer readable storage medium comprising computer readable code for execution on a computer processor to carry out a method for communicating binary data using a self-descriptive binary data structure, the method comprising:

generating an image header comprising 512 bytes with a first 128 bytes and a last 128 bytes that are location, size, and content definition invariant, the first 128 and last 128 storing architecture-specific descriptors and an eight byte version indicator;

generating a plurality of data segments, each of the plurality of data segments comprising a segment header and a data field, the segment header descriptive of the corresponding data segment;

attaching a data structure descriptor to the image header and the plurality of data segments, the data structure descriptor descriptive of the self-descriptive binary data structure, the self-descriptive binary data structure comprising the plurality of data segments and the data structure descriptor;

identifying a target data set within the data field;

storing a location of the target data set in the data structure descriptor; and

sending the self-descriptive binary data structure from a source device to a target device distinct from the source device.

30. (Previously Presented) The computer readable storage medium of claim 29, wherein the method further comprises storing a customizable directory descriptor and providing a directory of the data stored in each of the data fields within the self-descriptive binary data structure.

31. (Previously Presented) The computer readable storage medium of claim 30, wherein the method further comprises storing a bootstrap executable and identifying a location of a second target data set within the self-descriptive binary data structure using the customizable directory descriptor.

32. (Previously Presented) The computer readable storage medium of claim 31, wherein the method further comprises accessing the second target data set within the self-descriptive binary data structure.

33. (Original) The computer readable storage medium of claim 29, wherein the method further comprises wherein the data structure descriptor comprises at least one of data structure version descriptor, a data structure name descriptor, a data structure type descriptor, and a data structure count descriptor.

34. (Previously Presented) The computer readable storage medium of claim 29, wherein the method further comprises generating an alignment data segment and aligning the size of the self-descriptive binary data structure for at least one of error detection and correction.

35. (Original) The computer readable storage medium of claim 29, wherein the method further comprises storing a flag in the data segment header, the flag descriptive of the data stored in the data field.

36. (Canceled)

37. (Original) The computer readable storage medium of claim 29, wherein the method further comprises generating the plurality of data segments from a non-binary data structure.

38. (Original) The computer readable storage medium of claim 29, wherein the method further comprises processing an executable that is stored in the self-descriptive binary data structure.

39. (Previously Presented) The computer readable storage medium of claim 29, wherein the method further comprises processing a bootstrap executable, the bootstrap executable configured to access a code image within the self-descriptive binary data structure.

40. (Currently Amended) An apparatus for communicating binary data using a self-descriptive binary data structure, the apparatus comprising:

means for generating an image header comprising 512 bytes with a first 128 bytes and a last 128 bytes that are location, size, and content definition invariant, the first 128 and last 128 storing architecture-specific descriptors and an eight byte version indicator;

means for generating a plurality of data segments, each of the plurality of data segments comprising a segment header and a data field, the segment header descriptive of the corresponding data segment;

means for attaching a data structure descriptor to the image header and the plurality of data segments, the data structure descriptor descriptive of the self-descriptive binary data structure, the self-descriptive binary data structure comprising the plurality of data segments and the data structure descriptor;

means for identifying a target data set within the data field;

means for storing a location of the target data set in the data structure descriptor on a storage device; and

means for sending the self-descriptive binary data structure from a source device to a target device distinct from the source device.